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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/507,199 | 09/09/2004 | Andrew James Hickman | GB 020198 | 4279 |

24737 7590 05/31/2007
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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BRIARCLIFF MANOR, NY 10510

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| EXAMINER |
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LOVEL, KIMBERLY M

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| ART UNIT | PAPER NUMBER |
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2167

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| MAIL DATE | DELIVERY MODE |
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05/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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| Office Action Summary | Application No. 10/507,199 | Applicant(s) HICKMAN, ANDREW JAMES | |
| | Examiner Kimberly Lovel | Art Unit 2167 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-18 are rejected.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 26 January 2007 has been entered.

Specification

3. The disclosure is objected to because the specification fails to include section headings.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. **Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading.** If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Appropriate correction is required.

Claim Objections

4. **Claims 1, 8, 15 and 17** are objected to because of the following informalities:

Independent **claims 1, 8, 15 and 17** utilize the acronyms "CE" and "UDDI" without first defining the terms. For purposes of clarity, it is suggested that each of the terms be defined once within the claim language of each of the dependent claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1-3, 6-10, 13 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by US PGPub 2003/0110242 to Brown et al (hereafter Brown).**

Referring to claim 1, Brown discloses a method for automatically discovering web services comprising:

querying a known UDDI server address [application server 232] by a networked lightweight CE device [client machine 230 – personal digital assistant] (see [0077]) via a structured UDDI query [the business application service in Palm Pilot 230 can instruct the Palm Pilot to issue a request 238a to the posting Web

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application server container 236 for a copy of the currency conversion Web service 240] (see [0078], lines 1-4), **wherein the structured UDDI query includes the use of a unique identity [tModel] indicative that a web service is compliant with a particular web service standard interface which is supported and understood by the networked lightweight CE device** [Container 234 can include in the header of that request information about its local container. For instance, it might include in a first request for a Web service the information that the requesting device is a Palm Pilot with a Java stack] (see [0033] and [0078], lines 5-9), **the known UDDI server at the UDDI server address containing a list of web services** [the Web application server container 236 has available to it several implementations of the currency conversion Web service software for various platforms, including, for example, the Palm platform, a Java platform and Microsoft's .Net platform] (see [0078], lines 9-17), **and further wherein the list of web services includes one or more distinct web services that are compliant with the particular web service standard interface and which can be used by the networked lightweight CE device to implement at least one of providing data to the networked lightweight CE device and enhancing a functionality of the networked lightweight CE device** [the concurrency conversion Web service software in the Palm platform] (see [0078], lines 17-36);

identifying from said list in response to the structured UDDI query the compliant web services [the server can issue a response to the request informing the client container of this option] (see [0078], lines 17-19); **and**

automatically downloading via a structured response to the networked lightweight CE device at least one machine readable description of a distinct web service from the list of identified compliant web services (see [0078], lines 19-25).

Referring to claim 2, Brown discloses a method according to claim 1, said method being carried out periodically by the networked CE device, without user interaction (see [0031]).

Referring to claim 3, Brown discloses a method according to claim 1, wherein said querying comprises transmitting a query in a predefined format, and wherein said structured query contains a specific request, limiting the type of compliant web service identified (see [0078], lines 5-9).

Referring to claim 6, Brown discloses a method according to claim 3, and further comprising responding to said querying with a response comprising the list of compliant web services (see [0078], lines 12-19).

Referring to claim 7, Brown discloses a method according to claim 6, and further comprising selecting via said networked CE device a web service from said list of compliant web services and communicating the selected web service to said UDDI server address (see [0078], lines 19-25).

Referring to claim 8, Brown discloses **an apparatus for automatically discovering web services comprising:**

communicating means for querying a known UDDI server address
[application server 232] **containing a list of web services** [the Web application server container 236 has available to it several implementations of the currency conversion

Web service software for various platforms, including, for example, the Palm platform, a Java platform and Microsoft's .Net platform] **by a networked lightweight CE device** [client machine 230 – personal digital assistant] (see [0077] and [0078], lines 9-17) **via a structured UDDI query** [the business application service in Palm Pilot 230 can instruct the Palm Pilot to issue a request 238a to the posting Web application server container 236 for a copy of the currency conversion Web service 240] (see [0078], lines 1-4), **the structured UDDI query including use of a unique identity [tModel] indicative that a web service is compliant with a particular web service standard interface which is supported and understood by the networked lightweight CE device** [Container 234 can include in the header of that request information about its local container. For instance, it might include in a first request for a Web service the information that the requesting device is a Palm Pilot with a Java stack] (see [0033] and [0078], lines 5-9), **and further wherein the list of web services includes one or more distinct web services that are compliant with the particular web service standard interface and which can be used by the networked lightweight CE device to implement at least one of providing data to the networked lightweight CE device and enhancing a functionality of the networked lightweight CE device** [the concurrency conversion Web service software in the Palm platform] (see [0078], lines 17-36); **and**

identifying from said list in response to the structured UDDI query the compliant web services [the server can issue a response to the request informing the client container of this option] (see [0078], lines 17-19), **said communicating means further being arranged to automatically download via a structured response to**

the networked lightweight CE device at least one machine readable description of a distinct web service from the list of identified compliant web services (see [0078], lines 19-25).

Referring to claim 9, Brown discloses an apparatus according to claim 8, said apparatus comprising the networked lightweight CE device, and said communicating means periodically carrying out said querying without user interaction (see [0031]).

Referring to claim 10, Brown discloses an apparatus according to claim 8, wherein said communicating means queries said UDDI server address by transmitting the structured query in a predefined format and wherein said communicating means is further arranged to include in said structured query a specific request, thereby limiting the type of compliant web service identified (see [0078], lines 5-9).

Referring to claim 13, Brown discloses an apparatus according claim 8, and further comprising a user interface for displaying information and for receiving user instructions [personal digital assistant] (see [0028] and [0077]).

Referring to claim 14, Brown discloses an apparatus according to claim 13, wherein said user interface is arranged to display the list of compliant web services (see [0078], lines 12-19) and to receive a user selection of one or more of the displayed compliant web services (see [0078], lines 19-25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 5, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2003/0110242 to Brown et al as applied to respectively to claims 3 and 10 above, and further in view of US PGPub 2003/0061206 to Qian (hereafter Qian).

Referring to claims 4 and 11, Brown teaches a method substantially as claimed.

While Brown discloses a structured query, Brown fails to explicitly disclose the further limitation wherein said structured query contains a request for TV Anytime services, said structured query further including an element specifying a set of taxonomies to which said identified compliant web service must conform. Qian teaches said structured query contains a request for TV Anytime services (See page 3, paragraph [0037] "The descriptor/metadata may follow some well known standards. Examples of these standards include...TV-Anytime metadata..."); said structured query further including an element specifying a set of taxonomies to which said identified compliant web service must conform (See page 3, paragraph [0031] "Any content that does not match with the personal preference information is ignored or discarded. Those

that satisfy the preference criteria or match with the personal preference information are sent to the content assembler.” And see page 3, paragraph [0036] where different taxonomies relating to content format, etc are discussed.)

It would have been obvious to one with ordinary skill in the art to combine the teaching of Brown with that of Qian because, as Qian suggests, any number of well-known standards could be used in the discovery of web services, and there is useful commercial applicability for TV-Anytime in particular with these types of CE devices. It is for this reason that one of ordinary skill in the art would have been motivated to include said structured query contains a request for TV Anytime services, said structured query further including an element specifying a set of taxonomies to which said identified compliant web service must conform.

Referring to claim 5, the combination of Brown and Qian (hereafter Brown/Qian) discloses a method according to claim 4, wherein said set of taxonomies is at least one of authority name, broadcast service, genre [The preferences include contextual preferences regarding the content the user wishes to receive from the media source...favorite topics, news, sports news...The user may also provide preferences for content delivery such as time to download, desired quality of service, etc.”], content format, service usage rights, table types and queryable fields (Qian: see [0018]).

Referring to claim 12, Brown/Qian discloses an apparatus according to claim 11, wherein said set of taxonomies is at least one of authority name, broadcast service, genre [The preferences include contextual preferences regarding the content the user wishes to receive from the media source...favorite topics, news, sports news...The user

may also provide preferences for content delivery such as time to download, desired quality of service, etc.], content format, service usage rights, table types and queryable fields (Qian: see [0018]).

8. **Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2003/0110242 to Brown et al in view of US PGPub 2003/0061206 to Qian.**

Referring to claim 15, Brown discloses a method for automatically discovering web services comprising:

querying a known UDDI server address [application server 232] by a networked lightweight CE device [client machine 230 – personal digital assistant] (see [0077]) via a structured UDDI query [the business application service in Palm Pilot 230 can instruct the Palm Pilot to issue a request 238a to the posting Web application server container 236 for a copy of the currency conversion Web service 240] (see [0078], lines 1-4), wherein the structured UDDI query includes the use of a unique identity [tModel] indicative that a web service is compliant with a particular web service standard interface which is supported and understood by the networked lightweight CE device [Container 234 can include in the header of that request information about its local container. For instance, it might include in a first request for a Web service the information that the requesting device is a Palm Pilot with a Java stack] (see [0033] and [0078], lines 5-9), the known UDDI server at the UDDI server address containing a list of web services [the Web application server

container 236 has available to it several implementations of the currency conversion Web service software for various platforms, including, for example, the Palm platform, a Java platform and Microsoft's .Net platform] (see [0078], lines 9-17), **and further wherein the list of web services includes one or more distinct web services that are compliant with the particular web service standard interface and which can be used by the networked lightweight CE device to implement at least one of providing data to the networked lightweight CE device and enhancing a functionality of the networked lightweight CE device** [the concurrency conversion Web service software in the Palm platform] (see [0078], lines 17-36);

identifying from said list in response to the structured UDDI query the compliant web services [the server can issue a response to the request informing the client container of this option] (see [0078], lines 17-19); **and**

automatically downloading via a structured response to the networked lightweight CE device at least one machine readable description of a distinct web service from the list of identified compliant web services (see [0078], lines 19-25), **said querying comprises transmitting the structured query in a predefined format** (see [0036] and [0078], lines 5-9).

Brown fails to explicitly disclose the further limitations wherein the web services are TV Anytime web services and wherein said structured query further including an element specifying a set of taxonomies to which said identified compliant web service must conform. Qian discloses discovering web services, including the further limitations wherein the web services are TV Anytime web services [The descriptor/metadata may

follow some well known standards. Examples of these well known standards include ... TV-Anytime metadata ...] (see [0037]) and wherein said structured query further including an element specifying a set of taxonomies to which said identified compliant web service must conform [Any content that does not match with the personal preference information is ignored or discarded. Those that satisfy the preference criteria or match with the personal preference information are sent to the content assembler.] (see [0031] and [0036]).

It would have been obvious to one with ordinary skill in the art to combine the teaching of Brown with that of Qian because as Qian suggests, any number of well-known standards could be used in the discovery of web services, and there is useful commercial applicability for TV-Anytime in particular with these types of CE devices. It is for this reason that one of ordinary skill in the art would have been motivated to include said query contains a request for TV Anytime services, said query further including an element specifying a set of taxonomies to which said service must conform.

Referring to claim 16, the combination of Brown and Qian (hereafter Brown/Qian) discloses a method according to claim 15, wherein said set of taxonomies is at least one of authority name, broadcast service, genre [The preferences include contextual preferences regarding the content the user wishes to receive from the media source...favorite topics, news, sports news...The user may also provide preferences for content delivery such as time to download, desired quality of service, etc.], content format, service usage rights, table types and queryable fields (Qian: see [0018]).

Referring to claim 17, Brown discloses an apparatus for automatically discovering web services comprising:

communicating means for querying a known UDDI server address [application server 232] containing a list of web services [the Web application server container 236 has available to it several implementations of the currency conversion Web service software for various platforms, including, for example, the Palm platform, a Java platform and Microsoft's .Net platform] by a networked lightweight CE device [client machine 230 – personal digital assistant] (see [0077] and [0078], lines 9-17) via a structured UDDI query [the business application service in Palm Pilot 230 can instruct the Palm Pilot to issue a request 238a to the posting Web application server container 236 for a copy of the currency conversion Web service 240] (see [0078], lines 1-4), the structured UDDI query including use of a unique identity [tModel] indicative that a web service is compliant with a particular web service standard interface which is supported and understood by the networked lightweight CE device [Container 234 can include in the header of that request information about its local container. For instance, it might include in a first request for a Web service the information that the requesting device is a Palm Pilot with a Java stack] (see [0033] and [0078], lines 5-9), and further wherein the list of web services includes one or more distinct web services that are compliant with the particular web service standard interface and which can be used by the networked lightweight CE device to implement at least one of providing data to the networked lightweight CE device and enhancing a

functionality of the networked lightweight CE device [the concurrency conversion Web service software in the Palm platform] (see [0078], lines 17-36); **and**

identifying from said list in response to the structured UDDI query the compliant web services [the server can issue a response to the request informing the client container of this option] (see [0078], lines 17-19), **said communicating means further being arranged to automatically download via a structured response to the networked lightweight CE device at least one machine readable description of a distinct web service from the list of identified compliant web services** (see [0078], lines 19-25), **wherein said communicating means queries said UDDI server address by transmitting the structured UDDI query in a predefined format** (see [0036] and [0078], lines 5-9).

Brown fails to explicitly disclose the further limitations wherein the web services are TV Anytime web services and wherein said structured UDDI query further including an element specifying a set of taxonomies to which said identified compliant web service must conform. Qian discloses discovering web services, including the further limitations wherein the web services are TV Anytime web services [The descriptor/metadata may follow some well known standards. Examples of these well known standards include ... TV-Anytime metadata ...] (see [0037]) and wherein said structured UDDI query further including an element specifying a set of taxonomies to which said identified compliant web service must conform [Any content that does not match with the personal preference information is ignored or discarded. Those that

satisfy the preference criteria or match with the personal preference information are sent to the content assembler.] (see [0031] and [0036]).

It would have been obvious to one with ordinary skill in the art to combine the teaching of Brown with that of Qian because as Qian suggests, any number of well-known standards could be used in the discovery of web services, and there is useful commercial applicability for TV-Anytime in particular with these types of CE devices. It is for this reason that one of ordinary skill in the art would have been motivated to include said query contains a request for TV Anytime services, said query further including an element specifying a set of taxonomies to which said service must conform.

Referring to claim 18, Brown/Qian discloses an apparatus according to claim 17, wherein said set of taxonomies is at least one of authority name, broadcast service, genre [The preferences include contextual preferences regarding the content the user wishes to receive from the media source...favorite topics, news, sports news...The user may also provide preferences for content delivery such as time to download, desired quality of service, etc.], content format, service usage rights, table types and queryable fields (Qian: see [0018]).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US PGPub 2002/0174117 to Nykanen titled "Mobile Web Services"
- US PGPub 2004/0213409 to Murto et al titled "Service Discovery Access to User Location"

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Lovel whose telephone number is (571) 272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly Lovel
Examiner
Art Unit 2167

23 May 2007
kml


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